

**STUDENTS' PERCEPTION OF THE APPLICATION OF TECHNOLOGY IN
TEACHING AND LEARNING ACTIVITIES AT UNIVERSITY OF
MUHAMMADIYAH MALANG**

THESIS

**In Partial Fulfillment of the Requirement for Master's
Degree of English Language Education**



by:

**ERVIN GEMALA TANJUNG
201610560211028**

**DIRECTORATE OF POSTGRADUATE PROGRAM
UNIVERSITY OF MUHAMMADIYAH MALANG
January 2020**

**STUDENTS' PERCEPTION OF THE APPLICATION OF TECHNOLOGY
IN TEACHING AND LEARNING ACTIVITIES AT UNIVERSITY OF
MUHAMMADIYAH MALANG**

Proposed by:

ERVIN GEMALA TANJUNG
201610560211028

Has been accepted on
Friday, 24 January 2020

Advisor I



Dr. Masduki

Advisor II



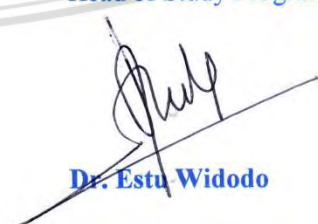
Dr. Estu Widodo

Director of Directorate of
Postgraduate Program



Prof. Abdul Halim, Ph.D.

Head of Study Program



Dr. Estu Widodo

THESIS

Written by:

ERVIN GEMALA TANJUNG
201610560211028

Has been examined in front of examiners
on Friday, 24 January 2020 and decided that
it has fulfilled the requirements to get
Master Degree of English Language Education
in Postgraduate Program of University of Muhammadiyah Malang

The Examiners

Chief : Dr. Masduki

Secretary : Dr. Estu Widodo

1st Examiner : Bayu Hendro Wicaksono Ph.D.

2nd Examiner : Dr. Sri Hartiningsih

LETTER OF STATEMENT

I, the undersigned :

Name : **ERVIN GEMALA TANJUNG**
NIM : **201610560211028**
Study Program : **Master of English Language Education**

Hereby, declare that :

1. The thesis entitled : **STUDENTS' PERCEPTION OF THE APPLICATION OF TECHNOLOGY IN TEACHING AND LEARNING ACTIVITIES AT UNIVERSITY OF MUHAMMADIYAH MALANG** is my original work and contains no one's scientific paper that may be proposed to achieve an academic degree at any universities. Besides, there is no other's idea or citation except those which have been quoted and mentioned at the bibliography.
2. If this thesis is proven as a form of **PLAGIARISM** in this thesis, I am willing to accept the consequences including accepting the **CANCELLATION OF THE GRANTING OF MASTER DEGREE** and undergoing any procedures required by the prevailing law.
3. This thesis can be used for literature review which can be accessed by others freely (**NON EXCLUSIVE ROYALTY**).

Thus, this statement is made truthfully to be used as appropriate.

Malang, 24 January 2020

The Writer,



ERVIN GEMALA TANJUNG

MOTTO AND DEDICATION

*Terkadang kesulitan harus kamu rasakan terlebih dulu
sebelum kebahagiaan yang sempurna datang kepadamu.*

(R.A. Kartini)



This thesis is dedicated to:

My parents

Dra. Anis Rohana and Drs. Wironoto

ACKNOWLEDGMENTS

In the Name of Allah, the most Gracious, the most Merciful. All praises are to Allah, king of the king, the Lord of the world, and the master of the day after, who has given us blessing and guidance. Because of His grace and mercy, the researcher can write well. The researcher realizes and feels very sure that without His blessing, mercy, and guidance, it would not be possible for herself to finish the paper.

On this opportunity, the researcher would like to express her profound gratitude, more than she can express, to Dr. Masduki M.Pd., as the first advisor and Dr. Estu Widodo M.Hum., as the second advisor for their valuable guidance, encouragement, patient, advises, and suggestions which are very helpful in finishing this undergraduate thesis. Her beloved parents Anis Rohana and Wironoto and her sister for her support help prayers and everything that they give to the researcher, her lovely friends who have supported and helped the researcher overcoming difficulties.

Last, but far from least, her very sincere thanks are to everyone who is not mentioned personally here; without their patience, guidance, support, and cooperation this paper could have never been written.

Finally, the researcher surrenders everything to Allah SWT and the researcher hopes this undergraduate thesis will be a useful thing for the researcher herself and for all to improve education quality.

Malang, 18 January 2020
The Researcher

Ervin Gemala Tanjung

STUDENTS' PERCEPTION OF THE APPLICATION OF TECHNOLOGY IN TEACHING AND LEARNING ACTIVITIES AT UNIVERSITY OF MUHAMMADIYAH MALANG

Ervin Gemala Tanjung

ervingemalatanjung.egt@gmail.com

Dr. Masduki, M.Pd. (NIDN 0008106601)

Dr. Estu Widodo, M.Hum. (NIDN 0020056801)

Master of English Language Education, University of Muhammadiyah Malang
Malang, East Java, Indonesia

ABSTRACT

The purpose of this study is to analyze students' perceptions about the application of technology in teaching and learning activities and to find out students' perceptions about the application of technology in teaching and learning activities at University of Muhammadiyah Malang that can provide information to the teacher in applying appropriate technology to her students. This research was conducted using qualitative method. This research was conducted at University of Muhammadiyah Malang for informatics engineering majors, the second semester with courses in reading and writing as a sample. The number of students is 39 people. The instrument used in this study contained a questionnaire. The results showed that the application of technology in learning English had a positive impact, students' perceptions of the application of technology in learning English were mostly positive. Students are interested in teaching. In connection with the results of the study, it is suggested that (1) teachers must have knowledge about technology in learning, (2) collaboration between teachers and students is needed to care for learning media in class properly.

Keywords: Students' Perception, Technology, Teaching and Learning Activities

**PERSEPSI MAHASISWA APLIKASI TEKNOLOGI DALAM AKTIVITAS
PENGAJARAN DAN PEMBELAJARAN DI UNIVERSITAS
MUHAMMADIYAH MALANG**

Ervin Gemala Tanjung

ervingemalatanjung.egt@gmail.com

Dr. Masduki, M.Pd. (NIDN 0008106601)

Dr. Estu Widodo, M.Hum. (NIDN 0020056801)

Magister Pendidikan Bahasa Inggris, Universitas Muhammadiyah Malang
Malang, Jawa Timur, Indonesia

ABSTRAK

Maksud dari penelitian ini ialah untuk menganalisis persepsi para murid tentang pengaplikasian teknologi dalam kegiatan belajar mengajar dan untuk mengetahui persepsi para siswa tentang pengaplikasian teknologi dalam kegiatan belajar mengajar di Universitas Muhammadiyah Malang yang dapat memberikan informasi kepada para guru dalam mengaplikasikan teknologi yang sesuai untuk siswa-siswanya. Penelitian ini dilakukan dengan menggunakan metode kualitatif. Penelitian ini dilakukan di Universitas Muhammadiyah Malang untuk jurusan teknik informatika, semester kedua dengan kursus membaca dan menulis sebagai sampel. Jumlah siswa adalah 39 orang. Instrumen yang digunakan dalam penelitian ini berisi kuesioner. Hasil penelitian menunjukkan bahwa penerapan teknologi dalam pembelajaran Bahasa Inggris berdampak positif, persepsi siswa terhadap penerapan teknologi dalam pembelajaran Bahasa Inggris kebanyakan positif. Siswa tertarik dengan pengajaran. Berdasarkan hasil penelitian disarankan agar (1) guru harus mempunyai pengetahuan tentang teknologi dalam pembelajaran, (2) dibutuhkan kerjasama antara guru dan siswa untuk merawat media pembelajaran di kelas dengan baik.

Keywords: Persepsi Siswa, Teknologi, Kegiatan Belajar Mengajar.

TABLE OF CONTENTS

	Page
TITLE PAGE	i
APPROVAL SHEET	ii
LEGALIZATION.....	iii
LETTER OF STATEMENT.....	iv
MOTTO AND DEDICATION.....	v
ACKNOWLEDGMENT	vi
ABSTRACT	vii
ABSTRAK.....	viii
TABLE OF CONTENTS	ix
INTRODUCTION	1
Research Background	1
Research Questions	4
REVIEW OF RELATED LITERATURE	4
The Concept of Perception	4
Students' Perception	5
Characteristic of Perception	5
The Important of Student's Perception	6
Factors that Influence Perception	7
Technology.....	8
Technology in Education	8
Definition of Multimedia.....	8
Audio-visual Media.....	9
1. Definition of Audio-visual Media.....	9
2. The Function of Audio-visual Media.....	9
3. Type of Audio-visual Media.....	10
4. Advantages and Disadvantages of Audio-visual Media.....	10
Review of Previous Studies.....	10
RESEARCH METHOD	11
Research Design	11
Subject of the study.....	12
Source of Data.....	12
1. Questionnaire.....	13
Data Collection.....	18
Data Analysis.....	18
1. Data Collection.....	17
2. Data Reduction.....	18
3. Data Display.....	19
4. Conclusion.....	19
RESEARCH FINDINGS AND DISCUSSION.....	19
Findings.....	19
Application of Technology is Enjoyable.....	15
Application of Technology is Fun.....	16
Application of Technology is Interesting.....	16

Application of Technology is Understandable.....	16
Application of Technology is Motivated.....	17
Application of Technology is Practical.....	17
Application of Technology Facilitates.....	18
Discussion.....	18
CONCLUSIONS AND SUGGESTIONS.....	20
Conclusions.....	20
Suggestions.....	20
BIBLIOGRAPHY.....	21
APPENDIXES.....	27



INTRODUCTION

Research Background

Technology has an important role in human life. Currently, most jobs require the use of technology in it, even though in the past these jobs were able to run well even without the use of technology. Comparing to the previous few years, almost every house in big cities has a computer and many people can operate it. Many people (ranging from children to adults) use technology in a variety of ways such as web browsing, sending messages, social networking, and interactive games. Then, we do not realize that we have relied on technology. Therefore, it will be beneficial if the application of technology in the teaching and learning process becomes the top priority in every school (Costley, 2014).

Nowadays, technology has been used in the teaching and learning process. Technological advancements have changed the process of education, research and service to the community and also create tools for communicating with a wider scope such as web site and e-mail. Therefore, today's challenge of our education system is adapting to new ways of teaching by using technology (Duderstadt, Atkins, & Van Houweling, 2002).

The changes that occur in the field of teaching and learning are ongoing due to various kinds of tools and the internet itself, which is more important (Ramorola, 2013). Thus, with the development of technology, "many countries have adopted technology-based strategies into their educational development plans or are in the planning stage to do so" (Kurt, 2014). Therefore, if the technology is used in the right way it can facilitate the teachers and students from traditional teaching and learning (Kozma & Vota, 2014). In addition, technology-based global education has the capacity to enhance critical thinking, but requires more than just luxury technology; this requires the development of a careful and thoughtful curriculum and organizational support (Klein, 2010).

The use of technology when teaching and learning activities take place in the classroom has become an important part of successful teaching. This has led many researchers to examine these factors (eg, Kotrlik & Redmann, 2005; Bauer and Kenton, 2005; Judson, 2006; Totter et al., 2006; ChanLin et al., 2006; Zhao, 2007; Gulbahar, 2007; Anderson and Maninger, 2007; Abbit and Klett, 2007; & Wood and

Ashfield, 2008). This makes students more likely to learn in less time if used appropriately (Almekhlafi & Almeqdadi, 2010). Besides, it can be an effective medium for teaching when used to involve all students in teaching and learning activities taking place in the classroom (Almekhlafi, 2006a, 2006b).

The application of technology has a considerable effect on the teaching process, giving the classroom freedom from space and time problems, and complementing student learning through access to original material sources. Therefore, education with a higher level has undergone significant changes from teaching to administration and management processes (Duderstadt et al., 2002). Later, Säljö (2010) states that technology not only supports the learning process but also changes the way students study. Thus, the learning process becomes increasingly depressed because of the increasing development of digital technology.

The use of technology has a good impact on student learning processes. Technology makes students more involved, in that way students can often absorb more information. Because the emergence of increasingly sophisticated technology occurs globally, technology is very relevant to students. Technology provides a valuable learning experience. Technology also provides opportunities for direct learning in all areas of the school curriculum (Costley, 2014). This can give students the opportunity to collaborate with other students and produce learning from each other. If these aspects are combined, they can have a positive impact on teaching and learning activities and foster motivation for students to become more enthusiastic in learning (Costley, 2014).

The application of technology in the classroom prepares students to become more independent and active individuals in teaching and learning activities. Bitter and Pierson (2005) stated that by applying technology such as computers in the classroom, students will be able to make their own knowledge based on past experience and new information.

Because every technology is created for a specific purpose, so according to Winner (1980) educators must rearrange the "Goal" of the technology applied in the classroom according to the system of each class. Experts (Winner, 1980, 2000; Bromley, 1998; Postman, 1998) have advised educators to pay more attention to the purpose of using technology in meaningful ways before applying it in the classroom.

One of the most important parts of the responsibilities of educators, in high school and college level, is to equip students to enter the workforce. Therefore, educators must master everything they can to help their students succeed. The preparation that must be done is to include the use of all types of technology that makes it possible to become a classroom teaching tool to empower students as they develop the critical thinking skills needed to solve the problems they face. Because all high school students must have experience in using technology so they can adjust to the same level when they start entering the world of lectures. Those who have just graduated from college, especially those who have become teachers are quite aware of the need for training in the use of technology in the classroom. However, for those who have taught in class for more than fifteen years, it is not certain to accept this situation (Ranasinghe, 2009).

However, the transition from traditional education approaches to increasingly advanced technology has become a difficult challenge for many countries (Kurt, 2014). Therefore, it is highly recommended for teachers to learn how to apply the technology itself. So the extent to which students can benefit from the technology applied is highly dependent on teachers (Kozma, 2003).

According to Nusir et al (2012), technology has the potential to make the learning environment more quality, with the ability to produce a more realistic learning context through the application of technology. Integration between computers, audio, video, and text will be a very potential learning media. For example, by presenting learning material using video, it will provide an illustration of the material described, so that it will be easier for students to understand it. Because if you only explain through the text it is not possible for students to absorb material that is given well (Jamaluddin, 2015).

According to Son et al. (2012) from their survey found that on average Indonesian teachers have a high basic computing ability, but their frequency of using computer applications is very lacking, for example, the word processing application schemes. Teachers must learn a lot about applying many applications and software if they want to enrich their teaching.

In its application, technology not only has advantages but also some disadvantages. Teaching is not just an effort to provide a lot of knowledge to students

and good teaching includes many methods that should be applied according to the situation (Santi 2009).

Based on all the reasons listed above, the researcher is interested in conducting research to expose students' perception toward technology used for teaching at the University of Muhammadiyah Malang.

Research Questions

Based on the background of the study, the research problem is formulated as follows:

What is the perception of the students toward technology used for teaching?

REVIEW OF RELATED LITERATURE

The Concept of Perception

According to Greenfield (1997), the word "perception" is often used in our daily activities and also in the literature, it can be concluded that almost everyone understands what it is and does not need to explain its meaning. But actually, the perception is very complex and the meaning depends on the situation. The understanding of perception according to some experts. Perception is consciousness sense (Angell, 2015). It can be interpreted that perception is how people represent something. A perception is created beginning with the eye, then the eye captures stimuli and forms physiological processes in order to create a perception. As Haire (1956) said and quoted also by Gibson, Ivancevich, & Donnelly (1973), perception is defined as the process of detecting information and compared to previous memories stored in one's brain. So perception is the act of interpreting information to provide an understanding of the surroundings.

Students' Perception

Not a few people believe that perception is something that is not easy to explain. Based on Wesely (2012) student perceptions can be classified into two targets: perceptions about themselves can be interpreted as the way students understand themselves and also the way they learn. But students' perceptions of the

conditions of the teaching and learning process include the way students deal with and understand aspects of the class, such as group work activities and behavior during the learning process.

Perception about students themselves: students' perception of preferences is whether students like or dislike group work activities carried out in class. While students' perceptions of the benefits of group work activities lead to students' perceptions of the benefits that students understand when teaching and learning.

The second type of perception is the perception of the learning situation. The area covers limitations or problems of group work activities. When students are active in the classroom, it is possible for students to pay attention and experience some obstacles that may occur during group work activities. But behind that all the most important things are students' perceptions of input to improve group work activities in the classroom (Zumor, et.al, 2013).

Characteristics of Perception

Based on Quick and Nelson (1997) there are three supporting aspects that influence our perceptions of people or other objects including the sensation, the perceived object, and the situation.

- a) The subject that perceives: When someone sees the target and tries to interpret what he sees. Such interpretations are strongly influenced by the personal factors of individuals who feel it. The characteristics of perception include the needs of people, past experiences, habits, personality, values, attitudes, etc.
- b) Objects that are perceived: Characteristics of targets that have been observed also affect someone's personal perception. Physical accessories, appearance and the nature of others in certain situations also affect someone's perception. Physical characteristics of a person such as age, height, body weight, gender, etc. People who have a prominent character will be very visible in the group compared to those who are quiet. Motion, sound, size and other attributes used by the target also affect personal perception. People, objects or events that are similar to each other also tend to be grouped together. The greater the similarity, the more likely it is to be considered a general group.

- c) The situation: The physical, social and organizational settings of the situation also affect individual perceptions. The situation where we see an object or event is important. The aspects that exist in the environment around us greatly affect our perception. For example, when we find out that our office mates call our superiors only by mentioning their names, things like that can be considered quite different when they occur in the office compared to time outside office hours.

The Importance of Student's Perception

It is known that students' perceptions are very important because by knowing them the teacher or lecturer can evaluate more optimally. This is in line with Chen (2003), student perceptions are very important in order to evaluate the effectiveness of teaching. Students' perceptions greatly influence success in learning and teaching. By knowing students' perceptions of teaching and learning activities in English, teachers can adjust learning methods accordingly.

Based on Kleinke (1978), perception is very important for teachers and also students because it influences teaching and learning activities. Students will be able to understand the lesson if they understand their own perceptions. If students can understand their own perceptions, they will understand learning methods that are suitable for them.

If students have a positive perception of the learning methods conveyed by the teacher, it can lead the teacher and students to get good results from teaching and learning activities. But if students perceive poorly, the teacher should change the learning method so students are interested and pay attention to the lesson.

Modifying the learning method is needed so that the teaching material is easily understood by students. Good or bad student perceptions can be analyzed by knowing students' responses to learning methods. If students are interested and eager to respond to the learning methods used by teachers, it means students have a good perception of their learning. While students' perceptions about the conditions of learning include how students feel and understand aspects of the class such as the nature of students and teachers.

Therefore, students' perceptions are very important, especially for teachers or lecturers. Petegem's (2008) research results show that the importance of students' perceptions can be a benchmark for their learning outcomes. Freiberg and Stein argue that students' perceptions can be used as solutions and indicators in describing classroom conditions. Therefore, students' perceptions are very important with the aim of developing teaching.

Factors that Influence Perception

Robson (2002) says that perhaps teachers are influenced by the way they themselves get knowledge related to their work. The results of the Ramazan's study (2013) found that teachers' perceptions were dependent on their students' language skills. So it can be said that teachers are influenced by the way they get knowledge from their students' language skills.

Hsieh (2010) argues that the demographic background of teachers, educational background, career background greatly influences the beliefs and perceptions of teachers about EFL learning. Aspects that influence perception include individual learning experience, public opinion, EFL learning motivation and knowledge of educational theory.

Richardson (1996) underlines the main sources of teachers' beliefs and perceptions: personal experience, experience with school and teaching, and experience with formal knowledge in both school subjects and pedagogical knowledge. Based on Donaghue (2003) teacher perceptions are strongly influenced by experience and personality. This is in line with Sia (1992) in her study, finding that experience of activities, such as practicum teaching seems to have a large effect that affects teacher perceptions. Goker (2006) argues the unique features of the culture, cultural and social background of the teachers themselves are the ones that most influence the success of a teacher.

It can be concluded that the aspects that most influence the teacher's perceptions can be from personal experience, experience with school teaching, pedagogical knowledge that affects teaching and learning activities, student abilities and situations.

Technology

According to Jamaluddin (2015) today the term technology becomes very familiar because it plays an important role in our daily lives. Technology is used in almost all aspects of human daily life. Therefore, with the rapid development of technology, it makes technology needed to be applied efficiently so that technology can be more easily used.

Various forms of technology that have been developed in accordance with the requirements, therefore technology is used in our daily activities starting from business, health, home, public places and not to be missed is education.

Technology in Education

In the world of technology, education is usually called multimedia, media that can be used during teaching and learning activities. There are many types of multimedia that can support teaching and learning activities, such as animation, videos, films, graphics, text, etc.

Definition of Multimedia

Multimedia can be interpreted using a combination of one or more media at the same time (Mishra & Sharma, 2005).

The use of multimedia gives us an idea of the application of several media in one system to benefit from it. The more media that is applied can cover more aspects that cannot be achieved using one media.

For example, from a text, the teacher can give a picture of the ship, but by combining text and technology about the ship, the image of the ship and maybe even raising the sound of the ship, it will certainly provide further explanation about the ship.

Nowadays, the more media used, the more skills and mastery of software or multimedia must be mastered by the teachers. So it can be concluded that teachers must be wise when deciding which one fits their skills and needs.

Technological advances demand the development of computers that are being used as well. The longer the computer becomes more sophisticated and multifunctional. Now almost all types of media can be displayed via a computer (Cutting, 2011).

The term multimedia adopted in this study is software that is applied in teaching and learning activities. This software consists of a combination of text, sound, animation, and video or can also be called audio-visual media.

Audio-visual Media

1. Definition of Audio-visual Media

According to Sanaky (2009), audiovisual media is a set of tools that can project images and sounds. Audiovisual media comes from a combination of audio and visual media. This allows students not only to see but also to hear the material given by the teacher.

2. The function of Audio-visual Media

Among the many functions that the media have, Yudhi Munadi (2008) argues that the function of the media consists of two stages, namely analyzing functions based on media and their uses. Analyzing functions based on media consists of three functions, (1) learning media as a source of learning, (2) semantic functions, and (3) manipulative functions. Whereas functions based on usability consist of two functions, (4) psychological functions, and (5) socio-cultural functions.

Based on the above restrictions, it can be concluded that learning media is something to convey teaching material.

3. Type of Audio-visual Media

Sowantharya et al. (2014) provide several examples of audio-visual media applications that can be used in teaching and learning activities. The first is News Bulletins, Chat shows, Movies, Speeches, and Documentaries. There are also other types of audio-visual media and can be implemented in class.

4. Advantages and Disadvantages of Audio-visual Media

According to Utami (2015), the application of audiovisual aids has advantages and disadvantages. The advantages of using audiovisual aids are: (1) the teacher can condition the classroom situation easily, (2) the teacher can deliver the material easily, (3) the learning process becomes more interesting, and (5) students become more active.

The application of audiovisual media also has weaknesses, they are: (1) need more time to prepare the projector manually, (2) if the power goes out then the

projector cannot be used, and (4) if the teacher does not understand how to apply audiovisual media then the learning process teaching will be disrupted.

Review of Previous Studies

Teaching and learning activities are complex activities but are needed where it is the process of transferring knowledge from the teacher to students. Teachers need to prepare their students with lessons that are not only well-structured but also interesting and fun because students who are interested in enjoying what they are learning will make better progress in understanding learning.

In addition, there are also other factors that can affect the teaching and learning process, such as material, teaching media, material presentation methods, class organization, student motivation, etc. Various kinds of things can affect teaching and learning activities in the classroom, one of which is technology.

There are many aspects that can be observed and analyzed in the application of technology to teaching; However, none of these studies discussed the benefits of using technology and exploring their perceptions and preferences towards them. Regarding these findings, this case needs to be studied because it also deals with the field of teaching and learning English.

The first study by Nikian, Nor and Aziz (2014). The result of this study is the only drawbacks the teachers have in using technology would be the lack of computers, insufficient time in preparing technology-based lessons and the lack of technical support.

The second study by Almekhlafi and Almeqdadi (2010). The results revealed that teachers integrate technology in their classes with different degrees and effectiveness in spite of the barriers that hinder such integration (e.g., technical problems, large number of students, lack of professional development training, lack of motivation and financial support, and negative teacher and parent attitudes toward the impact of technology on teaching and learning).

And the last study by Rana (2017). The result of this study is despite positive benefits technology carries in teaching and learning, its implementation is difficult to accomplish due to various challenges related to infrastructure, maintenance, and financial cost.

The researcher concludes that teacher's perception in the researchers conducted by Nikian, Nor and Aziz (2014), Almekhlafi and Almeqdadi (2010) and Rana (2017) that there are several obstacles faced in the advancement of technology in the classroom, including the lack of computers, lack of professional development training, their implementation is difficult to achieve due to various challenges related to infrastructure.

RESEARCH METHODS

Research Design

A qualitative design is a trend toward the description and explanation of language use within naturally occurring social and cultural settings. There are multiple methods for collecting data for qualitative research. Qualitative research employs observation, textual analysis, interviewing, recording and transcribing the speech (Trask, 1999). Similarly, Yin (2009) discusses six commonly used sources of evidence in case study research namely documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts. According to Berg (2004) qualitative research properly seeks the answer to questions by examining various social settings and individuals who habit these settings.

This research uses a descriptive qualitative design that illustrates students' perceptions of the application of technology in teaching and learning activities at the University of Muhammadiyah Malang. The data were taken from the questionnaire, but the researcher added a "reason" row in order to get qualitative data to analyze the results. The results, therefore, were presented in the form of description and analysis of the students' perception of the application of technology in teaching and learning activities. The researcher is interested in taking the subject of research at the University of Muhammadiyah Malang, especially in the use of technology in the teaching-learning process. Previously, it had been done at this university about students' attitudes toward the use of technology. For this reason, the researcher is interested in conducting research on the use of technology in this university in more depth, this study is intended to investigate the use of technology for teaching and teacher perceptions about the use of technology at the University of Muhammadiyah Malang.

Subjects of the study

The research subject is the source from which data are obtained. The subject of this study focuses on the perceptions of the students about the use of technology for informatics engineering majors, the second semester with courses in reading and writing at the University of Muhammadiyah Malang in the 2018/2019 Academic Year. The number of students is 39 people. This research was conducted in one class, based on the title of this research, the most appropriate major in Informatics engineering, because they are the ones who use technology most frequently in their teaching and learning activities.

Source of Data

All activities of the students during teaching and learning activities are monitored. Monitoring is carried out in three classes and only once for each class, each course runs for approximately 100 minutes. Monitoring is carried out when the teacher is teaching her students by applying audio-visual media. In this study data obtained through the questionnaires.

Questionnaire

Some questions related to the purpose of the study were given to the students in the form of questionnaires. The contents of the questionnaire were based on the needs of students, interests, likes or dislikes the teaching and learning activities using audio-visual media. In order to avoid misunderstanding the questionnaire, all questions were written in Indonesian and the researcher also added a "reason" row in order to get qualitative data to analyze the results. The questionnaire is given after the activity is over. The use of questionnaires is to obtain student perception data on the use of audio-visual media. 21 question items, which are categorized into seven requested by students. A statement that is categorized to make it easier to analyze. The questionnaire was already validity tested. The validity employed in this study is the latest or contemporary view (Widodo, 2018) where validity refers to the interpretation and use of the results of the assessment based on various evidences.

Data Collection

The process of retrieving data is obtained by the following stages. After some of the data needed are obtained from various reference texts relating to teaching materials and after obtaining a permit, research is conducted; of course, this is after getting an English teacher's approval.

The students are intentionally not told what will be observed so that students behave as naturally as possible. All important activities and events related to the required data are recorded. After getting class activities all students are given a questionnaire that relates to the object under study.

Data Analysis

Because this study aims to describe the perceptions of teachers and students about audio-visual applications and to know their strengths and weaknesses, qualitative methods are used in actual situations or conditions where students are being taught multimedia applications. The researcher used descriptive analysis. Miles and Huberman (1984) concluded that there are several procedures for analyzing data. The procedures are:

1. Data collection

The findings are displayed based on the results of the questionnaire. Whereas the questionnaire given to students consisted of 21 question items. The teacher and her students are given four answer choices using the rating scale. The students' response to this study aims to describe students' interests, likes or dislikes and impress students during the teaching and learning activities. The researcher also added a "reason" row in order to get qualitative data to analyze the results

2. Data reduction

The data are analyzed, summarized, selected the main point and are arranged systematically to provide a general explanation of the results of the study.

3. Data display

After reducing the data, the next step was data display, in which the researcher analyzed and described the data qualitatively. Through data analysis, the interpretation of the data obtained is easily explained. Through data analysis techniques, it is expected to be able to provide a complete explanation of the teacher and her students' shortcomings and strengths and students' perceptions of multimedia applications during the teaching and learning process.

4. Conclusions

The last step is a conclusion in which the researcher begins to develop the conclusion regarding the research questions addressed previously. The conclusion is directed to increase our knowledge of multimedia applications and to provide information related to the teaching and learning process.

RESEARCH FINDINGS AND DISCUSSIONS

Findings

As explained before, the questionnaire was distributed to 39 students majoring in Informatics Engineering, the second semester with courses in Reading and Writing at the University of Muhammadiyah Malang in the 2018/2019 Academic Year. The questionnaire was divided into 7 sections. Among them are about students' enjoyment, teacher's methods and instructions, students' motivation, teaching materials, sustainability, difficulties, and technical matters. According to one type of perception based on Quick and Nelson (1997) is the subject that perceives. The characteristic of this type of perception such as the needs of people, past experiences, habits personality, values, and attitudes. This type of perception is in line with the result of this research. The results of the questionnaire are presented in the following explanation.

The results of the 21 question items in order to find out the students' perception in the application of technology in teaching and learning activities. There are 7 indicators and each part consisted of 3 question items.

Application of Technology is Enjoyable

The students enjoy the learning media used by the teacher. Below are some examples of students' perception of enjoyment found during the research:

- (1) "Because the learning media used at each meeting often changes so that students do not feel bored."
- (2) "Do not feel bored, because with audio-visual it becomes more interesting to pay attention to."
- (3) "The media used in each meeting is different so at the time of learning it feels fun."

It can be seen from the fact below. The first indicator in the first question item showed that most of them 29 students (74%) chose "agree". For the second indicator, 27 students (69%) chose "agree" For the third indicator, 25 students (64%) chose "agree".

Application of Technology is Fun

The students like the learning media used by the teacher. Below are some examples of students' perception of teachers' method and instruction found during the research:

- (1) "By using media or tools to teach students to become more interested."
- (2) "Because with audio-visual students are not lazy to listen and become more understanding."
- (3) "Because every meeting always uses interesting media."

It can be seen from the fact below. The first indicator in the second question item showed that most of them 29 students (74%) chose "agree". For the second indicator, 29 students (74%) chose "agree". For the third indicator, 30 students (77%) chose "agree".

Application of Technology is Interesting

The students interest the learning media used by the teacher. Below are some examples of students' perception of motivation found during the research:

- (1) "Because with audio-visual media the learning process becomes more challenging."

- (2) “Because it is not easy to feel bored.”
- (3) “Because it is more motivated when students see someone who can speak English.”

It can be seen from the fact below. The first indicator in the third question item showed that most of them 27 students (69%) chose “agree”. For the second indicator, 23 students (59%) chose “agree”. For the third indicator, 29 students (74%) chose “agree”.

Application of Technology is Understandable

The students can understand the lessons well by the learning media used by the teacher. Below are some examples of students’ perception of teaching material found during the research:

- (1) “Yes, because Google has very broad knowledge.”
- (2) “Because by listening and seeing learning material will make it easier for us to understand.”
- (3) “Yes, because the material is different for each meeting.”

It can be seen from the fact below. The first indicator in the fourth question item showed that most of them 27 students (69%) chose “agree”. For the second indicator, 24 students (62%) chose “agree”. For the third indicator, 29 students (74%) chose “agree”.

Application of Technology is Motivated

The students were motivated by the learning media used by the teacher. Below are some examples of students’ perception of sustainability found during the research:

- (1) “So students do not feel bored.”
- (2) “In my opinion, audio-visual media is very good for learning media.”
- (3) “So students do not feel bored when the material is delivered.”

It can be seen from the fact below. The first indicator in the fifth question item showed that most of them 25 students (64%) chose “agree”. For the second indicator, 29 students (74%) chose “agree”. For the third indicator, 26 students (67%) chose “agree”.

Application of Technology is Practical

The students feel more practical by the learning media used by the teacher. Below are some examples of students' perception of the difficulties found during the research:

- (1) "The application of audio-visual media makes students more active."
- (2) "More practical audio-visual, because it uses data that can be moved."
- (3) "The teacher prepares to teach on time."

It can be seen from the fact below. The first indicator in the sixth question item showed that most of them 31 students (74%) chose "disagree". For the second indicator, 31 students (79%) chose "disagree". For the third indicator, 21 students (54%) chose "disagree".

Application of Technology Facilitates

The students do not face significant obstacles when the teacher used learning media in class. Below are some examples of students' perception of technical matters found during the research:

- (1) "Not only in the lab, can be used in the classroom and outside the classroom as well."
- (2) "With a laptop and projector and internet network, it is easy for teachers to use learning media."
- (3) "There are laptops and projectors as well as internet networks that support classroom teaching."

It can be seen from the fact below. The first indicator in the seventh question item showed that most of them 27 students (69%) chose "agree". For the second indicator, 23 students (59%) chose "agree". For the third indicator, 19 students (49%) chose "agree".

It can be concluded that many students who agree on the application of technology in the classroom can have a positive effect which supports the view that the application of technology will help improve teaching and learning activities in the classroom.

Students generally respond positively. Most students believe that technology has a positive effect on their perceptions of the teacher's ability to

convey material in ways that are clearer and easier to understand. Technology can also help teachers summarize important points and can make effective learning time in class. In other words, students seem to understand that technology supports teachers to be more organized and to be able to clarify the presentation and summarize the material.

The part where technology influences students' behavior is that they show that technology increases their attention, increases the quality and quantity of material they learn and positively influences the amount of material understood in class.

In the current performance culture in many academic teaching institutions, faculties are focused on obtaining good teaching evaluations and improving their evaluations (Davies, Lavin & Korte, 2009). The conclusion from this study shows that the application of technology in the classroom does seem to have a good effect on student evaluations as a whole.

Discussions

The goodness can be seen from the finding that technology used by the teacher is enjoyable, fun, interesting, understandable, motivated, practical and facilitates. Most of the students have a good perception of learning media used by the teacher. Forgas (1966) and Altman *et al.* (1985) state that perception showed the students' experiences, needs, interest and the way students saw the facts of and environment. As stated by Effendi and Praja (1989), learning with interest is better than without any interest. The technology could be used for beneficial activities such as learning a language. To support students in learning English, the teacher prepares facilities for students. For some material, the students are facilitated via video to learn it. Based on McKinnon (2000) and McGovern (1983), video is one of the teaching and learning techniques that is interesting and shows an atmosphere that seems real. The teacher also prepares tools to support other learning processes such as laptops, LCD, projector and speaker. During teaching and learning activities, students and teachers are also very communicative in fostering.

The results revealed that prospective the English teacher according to students' perception has positive attitudes towards the use of instructional technology. This will mostly help students to benefit more from the information teacher will be provided. The results also show that this positive behavior will support the teacher applying many teaching technology tools and learning activities will become more attractive to students. In addition, because they will increasingly master the application of various types of technological devices, learning activities will automatically become more enjoyable and students will experience even more benefits.

CONCLUSIONS AND SUGGESTIONS

Conclusions

The purpose of this study was to provide information about the students' perception of the application of technology in teaching and learning activities. Based on the results of the study, the researcher found that most of the students have a good perception of the application of technology in teaching and learning activities.

The researcher can conclude that based on the questionnaires that were analyzed by the researcher that the type of perception that found by the researcher was the subject that perceives (Quick and Nelson, 1997) such as application of technology is enjoyable, fun, interesting, understandable, motivated, practical and facilitates.

Suggestions

From this research, it is expected that some of these suggestions can inspire fresh ideas regarding the study of this topic and provide better teaching and learning activities. The first suggestion is for students. Students should be able to be invited to work together to love learning facilities such as speakers and LCDs because it can improve their understanding of the material and create a comfortable learning atmosphere.

Based on the results of the study, researchers recommend several things that are expected to help improve the skills of teachers in the application of

technology: Provide reasonable freedom for teachers to choose material in the curriculum, increasing cooperation between schools, give teachers sophisticated

technology, give the release time to teachers so that they can carefully plan the application of technology in teaching and learning activities and conduct a further investigation about the effect of the application of technology on student achievement and behavior

Finally, the results of the study are expected to provide useful information for future researchers who want to conduct similar studies. There are still many parts that can be explored related to this research such as; comparing technology applications for the next few years in certain classes.



REFERENCES

- Abbit, J. T., & Klett, M. D. (2007). *Identifying influences on attitudes and self – efficacy beliefs towards technology integration among pre-service educators*: Electronic Journal for the integration of technology in Education, 6, 28-42.
- Abdurrahman. 1999. *Metode Pembelajaran Tindakan Kelas*. Grafindo. Jakarta.
- Almekhlafi, A.G. (2006a). *The effect of computer assisted language learning (CALL) on United Arab Emirates English as a foreign language (EFL) school students achievement and attitude*. Journal of Interactive Learning Research, 17(2), 121-142.
- Almekhlafi, A.G. (2006b). *Effectiveness of interactive multimedia environment on language acquisition skills of 6th grade students in the United Arab Emirates*. International Journal of Instructional Media, 33 (4), 427, 241.
- Almekhlafi, A.G., & Almeqdadi, F.A. (2010). *Teachers' Perceptions of Technology Integration in the United Arab Emirates School Classrooms*. Emirates College for Advanced Education.
- Altman, S., Valenzi, E., & Hodgetts, R. M. (1985). *Organizational behavior: Theory and practice*. London: Academic Press, Inc.
- American Educational Research Association, American Psychological Association, National Council on Measurement in Education, Joint Committee on Standards for Educational and Psychological Testing (U.S.). (2014). *Standards for educational and psychological testing*, Washington, DC: American Educational Research Association, 2014.
- Anderson, S., & Maninger, R. (2007). *Preservice teachers' abilities, beliefs, and intentions regarding technology integration*. Journal of Educational Computing Research, 37 (2), 151-172.
- Anderson, C. W., & Roth, K. L. 1991. *Science teachers' conceptions of teaching and learning*. Greenwich: JAI Press.
- Ball, D. L., & McDiarmid, G. W. (1989). *The subject matter preparation of teachers*. Issue Paper, 1-29.
- Barcelos, A. (2003). *Researching Beliefs about SLA: A Critical Review*. In P. Kalaja, & A. M. F. Barcelos (Eds.), *Beliefs about SLA: New Research Approaches*. Dordrecht: Kluwer Academic Publishers. https://doi.org/10.1007/978-1-4020-4751-0_8
- Barman, C. R. (1999). *Completing the study: High school students' views of scientists and science*. Science and Children, 36(7), 16-21.
- Bauer, J., & Kenton, J. (2005). *Toward technology integration in the schools: Why it isn't happening*. Journal of Technology and Teacher Education, 13 (4), 519-546.

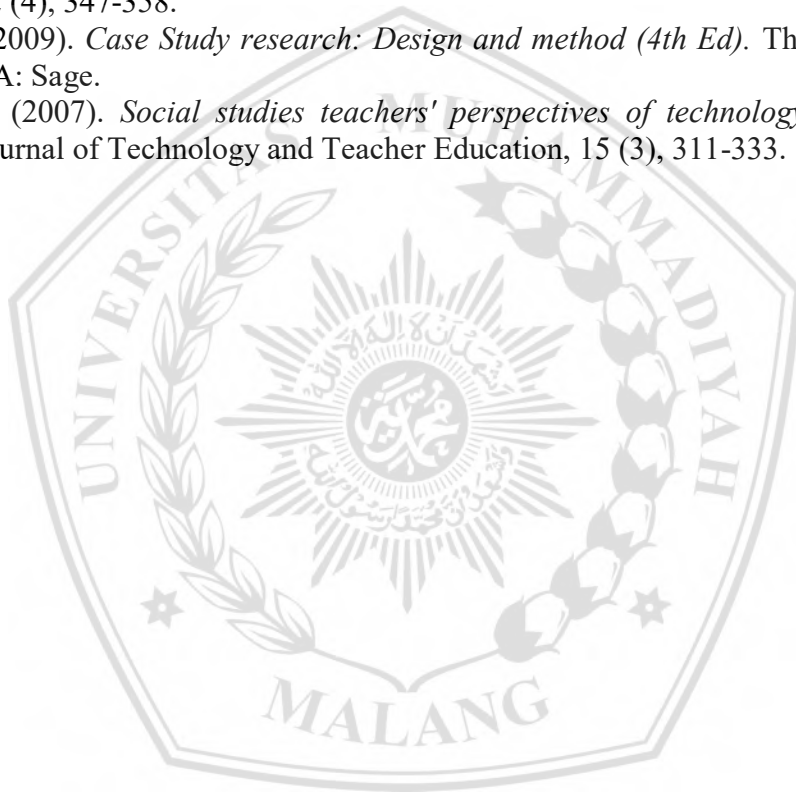
- Berg, B. (2004). *Qualitative research methods for the social science (5th ed)*. Boston: Pearson Education
- Bromley, H., & Apple, M. (1998). *Education/Technology/Power: Educational computing as a social practice*. Albany: State University of New York Press.
- Canbay O, Beceren S 2012. *Conceptions of teaching held by the instructors in English language teaching departments*. Turkish Online Journal of Qualitative Inquiry, 3(3): 71-81.
- ChanLin, L., Hong, J., Horng, J., Chang, S., & Chu, H. (2006). *Factors influencing technology integration in teaching: A Taiwanese perspective*. Innovations in Education and Teaching International, 43 (1), 57-68.
- Chen, Yining, and Leon B Hoshower. (2003). "Student Evaluation of Teaching Effectiveness: An Assessment of Student Perception and Motivation." Carfax Publishing. Vol. 28 No. 1.
- Costley, K. C. (2014). *The positive effects of technology on teaching and student learning*. Arkansas Tech University.
- Cutting, A. (2011). *Using multimedia in the classroom: a guide for teachers*. Samoa: The Curriculum Materials and Assessment Division, Ministry of Education, Sports and Culture.
- Davies, T.L., Lavin, A. M., & Korte, L. (2009) *Student Perceptions of How Technology Impacts the Quality of Instruction Learning*. Journal of Instructional Pedagogies.
- Demuth, K. & Machobane, M. & Moloi, F. (2009). *Learning to license null noun class prefixes in Sesotho*. Language 85:863-882.
- Donaghue, H. (2003). *An instrument to elicit teachers' beliefs and assumptions*. ELT Journal, 57 (4), 344–351. DOI: <https://doi.org/10.1093/elt/57.4.344>.
- Duderstadt, J. J., Atkins, D. E., & Van Houweling, D. E. (2002). *Higher education in the digital age: Technology issues and strategies for American colleges and universities*: Greenwood Publishing Group.
- Effendi, E. Usman, dan Praja, Johana. (1989). *Pengantar Psikologi*. Angkasa, Bandung.
- Eggen P & Kauchak D. (2001). *Educational psychology: windows on classrooms*. New Jersey Prentice Hall, Inc.
- Forgus, R. H. (1966). *Perception: The basic process in cognitive development*. New York : McGraw-Hill, Inc.
- Greenfield, Susan (1997). *How might the brain generate consciousness?* Communication and Cognition, 30 (3/4), 285-300.

- Göker, S. (2006). *Impact of peer coaching on self-efficacy and instructional skills in TEFL teacher education System*. An International Journal of Educational Technology and Applied Linguistics, 34(2), 239-254.
- Gulbahar, Y. (2007). *Technology planning: A Roadmap to successful technology integration in schools*. Computers and Education, 49 (4), 943-956.
- Hsieh, H.J. (2010). *Museum lifelong learning of the aging people*. Procedia Social and Behavioral Sciences, 2, 4831-4835.
- Hughes, T. P. (2004). *Human-Built World: How to Think about Technology and Culture*. University of Chicago Press; science.
- Jamaluddin, M. (2015). *The Application of Multimedia Into English Teaching*. Semarang State University.
- Jia, Y. (2004). *ESL teachers' perceptions and factors influencing their use of classroombased reading assessment*. Bilingual Research Journal, Vol. 29(2), 459-482.
- Judson, E. (2006). *How teachers integrate technology and their beliefs about learning: Is there a connection?* Journal of Technology and Teacher Education, 14 (3), 581-597.
- Klien, A. (2010). *Education budget plan wielded as policy lever*. Education Week, 29.
- Kotrlik, J., & Redmann, D. (2005). *Extent of technology integration in instruction by adult basic education teachers*. Adult Education Quarterly: A Journal of Research and Theory, 55 (3), 200-219.
- Kozma, R. B., & Vota, W. S. (2014). *ICT in developing countries: Policies, implementation, and impact*. In Handbook of Research on Educational Communications and Technology (pp. 885-894): Springer.
- Kurt, S. (2014). *Creating technology-enriched classrooms: implementational challenges in Turkish education*. Learning, Media and Technology, 39(1), 90-106.
- McGovern, J. (1983). *Video applications in English language teaching*. Oxford: Pergamon Press Ltd.
- McKinnon, M. (2000). *Teaching technologies: Teaching English using video*. Retrieved July 5th, 2016, from <http://www.onestopenglish.com/support/methodology/teaching-technologies/teaching-technologies-teaching-english-using-video/146527>
- McLeod, D. B. (1992). *Research on affect in mathematics education: A reconceptualization*. In D. A. Grouws (Ed.), *Handbook of research on mathematics teaching and learning: A project of the National Council of Teachers of Mathematics* (pp. 575-596). New York, NY, England: Macmillan Publishing Co, Inc.

- Miles, M and Huberman, M. (1984). *Qualitative Data Analysis a source book of new methode*. London: Sage Publication.
- Mishra, S. and Sharma, R. (2005). *Interactive multimedia in education and training*. Hershey: Idea Group Publishing.
- Munadi , Y. (2008). *Media Pembelajaran sebuah pendekatan baru*. Jakarta: Gaung persada press.
- Nelson, D.L. dan Quick, J.Cl. (1997). *Organizational Behavior : Foundation, Realities, and Challenges, Second Edition*. Minneapolis : West Publishing Company.
- Nikian, S., Nor, F. M., & Aziz, M. A. (2013). *Malaysian Teachers' Perception of Applying Technology in the Classroom*. Procedia - Social and Behavioral Sciences 103 (2013) 621 – 627.
- Nusir, S., I. Alsmandi, M. Al-Kabi, F. Shardagah. (2012). *Studying the impact of using multimedia interactive programs at children ability to learn basic math skills*. Acta Didacta Napocensia. Volume 5 Number 2.
- Peterson, K. D., & Yaakobi, d. (1979). *Self-concept and perception of role behavior of high school sciene students and teachers: New assessment instruments*. Journal of Research in Sciene Teaching. Vol. 16, No.5, PP. 433-438 (1979).
- Pierson, M. E. (2001). *Technology integration practice as a function of pedagogical expertise*. Journal of Research on Computing in Education, 33, 413-430.
- Postman, N. (1998). *Five things we need to know about technological change*. In P. D. Palma (Ed.), Annual Editions: Computers in Society 06/07. Iowa: McGraw-Hill.
- Ramorola, M. Z. (2013). *Challenge of effective technology integration into teaching and learning*. Africa Education Review, 10(4), 654-670.
- Rana, N. (2012). *A study to assess teacher educators' attitudes towards technology integration in classrooms*. Journal of Educational Studies, Trends & Practices, 2(2), 190e205.
- Ranasinghe, A.I. (2009). *The Benefit of Integrating Technology into the Classroom*. International Mathematic Forum, 40,1955-1961.
- Richards, J. (2001). *Approaches and methods in langugae teaching*. Cambridge: Cambridge University Press.
- Richardson, V. (1996). *The role of attitudes and beliefs in learning to teach*. In J. Sikula (Ed.), Handbook of research on teacher education (2nd ed., pp. 102-119). New York: Macmillan.

- Robson, C. (2002). *Real world research: a resource for social scientists and practitioner-researchers (2nd ed.)*. Oxford: Blackwell Publishers Ltd.
- Sanaky, H. (2009). *Media pembelajaran*. Yogyakarta: Safiria Insania Press.
- Santi, C. N. (2009). *A descriptive study of English teaching-learning methods in the classroom of the year seven teacher in SMP 7 Brebes in the academic year of 2008/2009*. Final Project. Semarang: Universitas Negeri Semarang (Unpublished).
- Säljö, R. (2010). *Digital tools and challenges to institutional traditions of learning: technologies, social memory and the performative nature of learning*. Journal of Computer Assisted Learning, 26(1), 53-64.
- Sia, A. P. (1992). *Preservice Elementary Teachers' Perceived Efficacy in Teaching Environmental Education: A Preliminary Study*. Paper presented at the ECO-ED North American Association for Environmental Education Annual Conference, Toronto, Canada.
- Son, J, T. Robb, and I. Charismandji. (2011). *Computer Literacy and Competency: A Survey of Indonesian Teachers of English as a Foreign Language*. CALL-EJ. 12(1), 26-42.
- Sowantharya, Y. L, S Gomathi, and C. Muhuntarajan. (2014). *Audio visual media and English learners*. International Journal on Recent and Innovation Trends in Computing and Communication, 2(2).
- Srakang, L., and Jansem, A. (2013). *A Study of Teachers' Perceptions toward Using English Textbooks: A Case Study of 10th Grade English Teachers in Maha Sarkham Province*.
- Totter, A., Stutz, D., & Grote, G. (2006). *ICT and schools: Identification of factors influencing the use of new media in vocational training schools*. The Electronic Journal of e-Learning, 4 (1), 95–102.
- Trask, R. (1999). *Key concepts in language and linguistics*. London: Routledge.
- Utami, Dian. (2015). *Teaching Vocabulary Using Audiovisual Aids at the Vocabulary Using Audiovisual Aids at the First Grade First Grade of SDN 2 Sawahan*. Muhammadiyah University of Surakarta.
- Van Petegem, K., Aelterman, A., Van Keer, H., & Rosseel, Y. (2008). *The influence of student characteristics and interpersonal teacher behaviour in the classroom on students' well-being*. Social Indicators Research, 85, 279–291.

- Widodo, E. (2018). *Some Notes on the Contemporary Views of Validity in Psychological and Educational Assessment*. Advances in Social Science, Education and Humanities Research, volume 231. Atlantis Press.
- Winner, L. (1980). *Do artifacts have politics?*. In D. M. Kaplan (Ed.), *Readings in the Philosophy of Technology* (pp. 289-203). Albany: Rowman & Littlefield.
- Wood, R.; & Ashfield, J. (2008). *The use of the interactive whiteboard for creative teaching and learning in literacy and mathematics: a case study*. British Journal of Educational Technology, 39 (1), 84-96.
- Xu, J. (2010). On the problems and strategies of multimedia technology in English teaching. *Journal of Language Teaching and Research*, 1(3), 215-218.
- Yager, R. E., & Yager, S. O. (1985). *Changes in perceptions of science for third, seventh, and eleventh grade students*. Journal of Research in Science Teaching, 22 (4), 347-358.
- Yin, R. (2009). *Case Study research: Design and method (4th Ed)*. Thousand Oaks, CA: Sage.
- Zhao, Y. (2007). *Social studies teachers' perspectives of technology integration*. Journal of Technology and Teacher Education, 15 (3), 311-333.



APPENDIXES

The Students' Perception of The Application of Technology in Teaching and Learning Activities

No.	Pernyataan	Sangat Setuju	Setuju	Tidak Setuju	Sangat Tidak Setuju	Alasan
Students' enjoyment						
1	Audio-visual learning media applied by English teacher is fun	26%	74%	0%	0%	
2	It is not easy to feel bored when the teacher teaches using audio-visual media	26%	69%	5%	0%	
3	During this audio-visual learning media used by English teacher is fun	36%	64%	0%	0%	
Teacher's method and instruction						
4	I can respond to question from a teacher who teaches by applying audio-visual media	16%	74%	0%	0%	
5	When applying audio-visual media, explanations of subject matter are easy to understand	21%	74%	5%	0%	

6	My English teacher always changes the audio-visual learning media used	13%	76%	8%	3%	
Students' motivation						
7	I am more willing to ask questions when the teacher uses audio-visual media in learning	3%	69%	28%	0%	
8	I am more enthusiastic about learning when the teacher teaches using audio-visual media	33%	59%	8%	0%	
9	I feel more motivated to speak English after the teacher teaches using audio-visual media	18%	74%	8%	0%	
Teaching material						
10	The subject matter given by the teacher can be found on the internet	28%	69%	3%	0%	
11	The subject matter delivered by the teacher through audio-visual media is easier to understand	31%	62%	8%	0%	
12	The material presented in audio-visual media provided knowledge that I had not yet obtained	13%	74%	13%	0%	
Sustainability						

13	If using audio-visual media in the next teaching, the method of delivering material must be replaced	13%	64%	23%	0%	
14	Audio-visual media can be applied for subsequent learning	23%	74%	3%	0%	
15	I agree if the application of audio-visual media is continued	31%	67%	3%	0%	
Difficulties						
16	The application of audio-visual media makes students passive	3%	10%	74%	13%	
17	Practice in learning becomes more difficult when the teacher uses audio-visual media	3%	15%	79%	3%	
18	When teacher prepare learning tools for audio-visual teaching media takes a long time	8%	31%	54%	8%	
Technical matters						
19	Teaching using audio-visual media is not necessary in the multimedia lab	23%	69%	8%	0%	
20	The teacher can use audio-visual media when teaching correctly	36%	59%	5%	0%	

21	Audio-visual media for teaching in class is sufficient	23%	49%	28%	0%	
----	--	-----	-----	-----	----	--

Adopted from Jamaluddin (2015)



PENGUJIAN RELIABILITAS INSTRUMEN

Pengujian reliabilitas instrumen dimaksudkan untuk mengetahui keandalan dan konsistensi instrumen penelitian sebagai alat untuk mengukur variabel yang diukurnya. Pengujian reliabilitas menggunakan teknik *Cronbach's Alpha*. Kriteria pengujian menyatakan apabila nilai *Cronbach's Alpha* $\geq 0,6$ berarti variabel dinyatakan reliabel. Hasil pengujian reliabilitas disajikan pada tabel berikut :

Indikator	Nilai <i>Cronbach's Alpha</i>	Kriteria	Keterangan	Item pertanyaan yg dihapus	Nilai <i>Cronbach's Alpha</i>	Kriteria	Keterangan
Student's Enjoyment	0,805	0,6	Reliabel	-	-	-	-
Teacher's Method and Instruction	0,498	0,6	Tidak Reliabel	P6	0,662	0,6	Reliabel
Student's Motivation	0,383	0,6	Tidak Reliabel	P7	0,513	0,6	Tidak Reliabel
				P8	0,346		
				P9	0,241		
Teaching Material	0,214	0,6	Tidak Reliabel	P10	0,607	0,6	Reliabel
Sustainability	0,395	0,6	Tidak Reliabel	P13	0,835	0,6	Reliabel
Difficultties	0,551	0,6	Tidak Reliabel	P17	0,616	0,6	Reliabel
Technical Matters	0,408	0,6	Tidak Reliabel	P21	0,612	0,6	Reliabel

Berdasarkan hasil pengujian reliabilitas instrumen penelitian diketahui bahwa indikator student's motivation menghasilkan nilai *Cronbach's Alpha* $< 0,6$ walaupun dilakukan penghapusan item pertanyaan. Dengan demikian indikator tersebut dinyatakan tidak reliabel atau tidak konsisten dalam mengukur indikator tersebut, sehingga tidak dapat dipergunakan sebagai alat pengumpul data dalam penelitian ini. Sedangkan indikator yang lain menghasilkan nilai *Cronbach's Alpha* $> 0,6$ yang berarti indikator tersebut dinyatakan reliabel atau konsisten dalam mengukur indikator tersebut, sehingga dapat dipergunakan sebagai alat pengumpul data dalam penelitian ini.

